

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 10/649,777

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (withdrawn): A ferrite core for use in coupling transformers and distributing transformers in CATV equipments, said ferrite core being made of a ferrite having a saturation magnetostriction  $|\lambda_s|$  of  $8 \times 10^{-6}$  or less in an absolute value and an initial permeability  $\mu_i$  of 300 or more.

2. (withdrawn): A ferrite core for use in coupling transformers and distributing transformers in CATV equipments, said ferrite core being made of a ferrite having an initial permeability  $\mu_i$  of 300 or more, and a maximum impedance distortion ratio of 4 or less after magnetic saturation in a frequency range between 500 kHz and 2000 kHz including a mechanical resonance frequency  $f_0$ .

3. (withdrawn): The ferrite core according to claim 1, wherein said ferrite has a residual magnetic flux density  $Br$  of 150 mT or less in a magnetic field of 10 to 2000 A/m.

4. (withdrawn): The ferrite core according to claim 2, wherein said ferrite has a residual magnetic flux density  $Br$  of 150 mT or less in a magnetic field of 10 to 2000 A/m.

5. (withdrawn): The ferrite core according to claim 3, wherein said ferrite has a squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio  $Br/B_m$  of a residual magnetic flux density  $Br$  to a maximum magnetic flux density  $B_m$ .

6. (withdrawn): The ferrite core according to claim 4, wherein said ferrite has a

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 10/649,777

squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio Br/Bm of a residual magnetic flux density Br to a maximum magnetic flux density Bm.

7. (withdrawn): The ferrite core according to claim 1, wherein said ferrite has a composition comprising as main components 47 to 50% by mol of  $Fe_2O_3$ , 29 to 34% by mol of  $ZnO$ , 9 to 15% by mol of  $NiO$ , and 7 to 9% by mol of  $CuO$ .

8. (withdrawn): The ferrite core according to claim 2, wherein said ferrite has a composition comprising as main components 47 to 50% by mol of  $Fe_2O_3$ , 29 to 34% by mol of  $ZnO$ , 9 to 15% by mol of  $NiO$ , and 7 to 9% by mol of  $CuO$ .

9. (withdrawn): The ferrite core according to claim 1, wherein said ferrite has a composition comprising as main components 50 to 55% by mol of  $Fe_2O_3$  and 10 to 14% by mol of  $ZnO$ , the balance being substantially  $MnO$ .

10. (withdrawn): The ferrite core according to claim 2, wherein said ferrite has a composition comprising as main components 50 to 55% by mol of  $Fe_2O_3$  and 10 to 14% by mol of  $ZnO$ , the balance being substantially  $MnO$ .

11. (withdrawn): The ferrite core according to claim 1, wherein said ferrite core is a multi-hole core or a toroidal core.

12. (withdrawn): The ferrite core according to claim 2, wherein said ferrite core is a multi-hole core or a toroidal core.

13. (currently amended): A CATV equipment comprising a coupling transformer and/or a distributing transformer, each of which is constituted by a ferrite core and a winding wound around said ferrite core, said ferrite core being made of a ferrite having a saturation

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 10/649,777

magnetostriction  $|\lambda_s|$  of  $8 \times 10^{-6}$  or less in an absolute value and an initial permeability  $\mu_i$  of 300 or more,

wherein said ferrite has a residual magnetic flux density  $Br$  of 150 mT or less in a magnetic field of 10 to 2000 A/m, and wherein said ferrite has a squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio  $Br/B_m$  of a residual magnetic flux density  $Br$  to a maximum magnetic flux density  $B_m$ .

14. (currently amended): ~~A~~The CATV equipment comprising a coupling transformer and/or a distributing transformer, each of which is constituted by a ferrite core and a winding wound around said ferrite core according to claim 13, said ferrite core being made of a ferrite having an initial permeability  $\mu_i$  of 300 or more, and a maximum impedance distortion ratio of 4 or less after magnetic saturation in a frequency range between 500 kHz and 2000 kHz including a mechanical resonance frequency  $f_0$ .

15. - 18. (canceled).

19. (new): The CATV equipment according to claim 13, wherein said ferrite has a composition either comprising as main components 47 to 50% by mol of  $Fe_2O_3$ , 29 to 34% by mol of  $ZnO$ , 9 to 15% by mol of  $NiO$ , and 7 to 9% by mol of  $CuO$  or comprising as main components 50 to 55% by mol of  $Fe_2O_3$  and 10 to 14% by mol of  $ZnO$ , the balance being substantially  $MnO$ .

20. (new): The CATV equipment according to claim 13, wherein said ferrite core is a multi-hole core or a toroidal core.

21. (new): A bi-directional CATV system comprising transmission lines comprising

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 10/649,777

coaxial mainlines or optical fiber cables disposed between a headend and the terminals of CATV subscribers, at least part of said CATV equipments comprising a coupling transformer and/or a distributing transformer, each of which is constituted by a ferrite core and a winding wound around said ferrite core,

    said ferrite core being made of a ferrite having a saturation magnetostriction  $|\lambda_s|$  of  $8 \times 10^{-6}$  or less in an absolute value and an initial permeability  $\mu_i$  of 300 or more, wherein said ferrite has a residual magnetic flux density  $B_r$  of 150 mT or less in a magnetic field of 10 to 2000 A/m, and wherein said ferrite has a squareness ratio of 0.5 or less, said squareness ratio being represented by a ratio  $B_r/B_m$  of a residual magnetic flux density  $B_r$  to a maximum magnetic flux density  $B_m$ .